

June 29, 2020

Mr. Adam Fox, P.E.
Principal Engineer
Environmental Compliance Section
Bureau of Engineering and Construction
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention: Amie Maines, P.E. / Mandy Socolosky

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance

Agreement No.: 8.07-01 (18)

HazMat Inspection - Bridge No. 01686B, I-84 TR825 over Route 44 EB & Columbus

Boulevard, Ĥartford, CT

ConnDOT Assignment No. 514-6288 ConnDOT Project No. 63-654 TRC Project No. 289951.6288.0710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with the rehabilitation of Bridge No. 01686B, I-84 TR825 over Route 44 EB & Columbus Boulevard in Hartford, Connecticut. Results of the survey identified lead paint to be present on the structural steel/metal bridge components and railing supports at Bridge No. 01686B. Results obtained from TCLP waste stream sampling and analysis for leachable lead from the paint on the structural steel/metal bridge components and railing supports characterized the paint waste streams at Bridge No. 01686B as CTDEEP/RCRA hazardous waste. No detectable amounts of lead in paint were identified on the small yellow painted section of Pier No. 6, therefore any project paint waste stream would be non-hazardous, non-RCRA lead waste. Black tar between the expansion joints beneath the bridge were sampled and found to contain asbestos. Canvas between the bearing plate & concrete pier was sampled and found to contain no detectable levels of asbestos. No bird/pigeon guano accumulations or bloodborne pathogen (BBP) concerns were observed in accessible areas of Bridge No. 01686B. Potential Universal Waste & Connecticut Regulated Waste in the form of light pole/box luminaires and security cameras were identified, however they are not expected to be impacted. Associated laboratory data, TRC Mobile Data report, project description and site map are attached.

If you have any questions, please call TRC at (860) 298-9692.

Very Truly Yours,

**TRC** 

Stephen R. Arienti, CHMM

Jens RM

Senior Project Scientist – Program Manager

Erik R. Plimpton, P.E., CHMM, CMC Vice President – Engineer in Charge



#### **Lead Based Paint Measurement Summary Table**

Device(s): Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer

Site: ConnDOT - Bridge No. 01686B, Hartford, CT

Project # : 289951.6288.0710
Date(s): 6/10/2020
Inspectors: Elise Barrieau

Number	Interior/ Exterior	Location	Bridge No.	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm²)	Precision (mg/cm²)	Depth Index	Duration (sec)	Date/Time
1			Self Calibration										48.3	6/10/2020 8:04
2			0.0 Calibration							0.0	0.0	1.0	9.2	6/10/2020 8:05
3			0.7 Calibration							0.7	0.1	1.1	7.1	6/10/2020 8:05
4			0.3 Calibration							0.3	0.0	1.1	17.3	6/10/2020 8:06
5	Exterior	Hartford, CT	Bridge No. 01686B		i beam panel		Metal	Green	Defective	30.4	1.1	2.9	23.6	6/10/2020 8:22
6	Exterior	Hartford, CT	Bridge No. 01686B		i beam panel		Metal	Green	Defective	22.7	1.2	4.9	17.9	6/10/2020 8:23
7	Exterior	Hartford, CT	Bridge No. 01686B		vertical brace		Metal	Green	Defective	22.4	2.2	3.9	5.7	6/10/2020 8:25
8	Exterior	Hartford, CT	Bridge No. 01686B		i beam		Metal	Green	Defective	0.2	0.0	1.6	13.8	6/10/2020 8:27
9	Exterior	Hartford, CT	Bridge No. 01686B		i beam under		Metal	Green	Defective	1.1	0.3	3.3	4.1	6/10/2020 8:30
10	Exterior	Hartford, CT	Bridge No. 01686B		i beam under		Metal	Green	Defective	2.3	1.3	3.4	3.6	6/10/2020 8:30
11	Exterior	Hartford, CT	Bridge No. 01686B	Pier 2	drain pipe		Metal	Green	Defective	4.9	0.4	2.7	11.3	6/10/2020 9:06
12	Exterior	Hartford, CT	Bridge No. 01686B	Pier 2	drain pipe		Metal	Green	Defective	5.1	1.0	2.2	9.2	6/10/2020 9:07
13	Exterior	Hartford, CT	Bridge No. 01686B	Pier 2	roadway beam		Metal	Green	Defective	0.0	0.0	1.0	10.7	6/10/2020 9:18
14	Exterior	Hartford, CT	Bridge No. 01686B	Pier 2	roadway beam		Metal	Green	Defective	0.0	0.0	1.0	10.3	6/10/2020 9:19
15	Exterior	Hartford, CT	Bridge No. 01686B	Pier 2	roadway beam		Metal	Green	Defective	0.0	0.0	7.7	24.5	6/10/2020 9:20
16	Exterior	Hartford, CT	Bridge No. 01686B	Pier 2	roadway beam		Metal	Grey	Defective	0.0	0.5	10.0	15.8	6/10/2020 9:22
17	Exterior	Hartford, CT	Bridge No. 01686B	Pier 2	roadway beam		Metal	Grey	Defective	0.0	0.0	1.0	30.0	6/10/2020 9:23
18	Exterior	Hartford, CT	Bridge No. 01686B	Pier 6	pier		Concrete	Yellow	Intact	0.0	0.0	1.0	10.7	6/10/2020 9:52
19	Exterior	Hartford, CT	Bridge No. 01686B	Pier 6	pier		Concrete	Yellow	Intact	0.0	0.0	1.0	8.6	6/10/2020 9:52
20	Exterior	Hartford, CT	Bridge No. 01686B	Pier 6	railing support		Metal	Silver	Defective	8.4	0.9	2.0	15.3	6/10/2020 9:54
21	Exterior	Hartford, CT	Bridge No. 01686B	Pier 6	railing support		Metal	Silver	Defective	8.6	1.0	2.0	11.7	6/10/2020 9:55
22	Exterior	Hartford, CT	Bridge No. 01686B	Pier 6	beam		Metal	Green	Defective	14.4	1.2	10.0	12.8	6/10/2020 10:26
23	Exterior	Hartford, CT	Bridge No. 01686B	Pier 6	beam		Metal	Green	Defective	17.0	1.3	5.3	11.3	6/10/2020 10:28
24			0.0 Calibration							0.0	0.0	1.0	9.2	6/10/2020 10:41
25			0.7 Calibration							0.7	0.1	1.1	8.2	6/10/2020 10:41
26			0.3 Calibration							0.3	0.0	1.1	12.7	6/10/2020 10:42



Tel: (203) 377-9984 Fax: (203) 377-9952 e-mail: cet1@cetlabs.com

Client: Mr. Stephen Arienti

TRC Environmental Consultants

21 Griffin Rd., North Windsor, CT 06095

# **Analytical Report CET# 0060339**

Report Date:June 15, 2020

Project: Rehabilitation of Bridge 01686B, I-84 TR825, Htfd

Project Number: 289951.6288.0710

Connecticut Laboratory Certificate: PH 0116 Massachusetts Laboratory Certificate: M-CT903 Rhode Island Laboratory Certificate: 199



New York NELAP Accreditation: 11982 Pennsylvania Certificate: 68-02927 CET #: 0060339

Project: Rehabilitation of Bridge 01686B, I-84 TR825, Htfd

Project Number: 289951.6288.0710

#### **SAMPLE SUMMARY**

The sample(s) were received at 22.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1	0060339-01	Solid	6/10/2020 9:50	06/11/2020
2	0060339-02	Solid	6/10/2020 11:32	06/11/2020
3	0060339-03	Solid	6/10/2020 12:05	06/11/2020

Analyte: TCLP Lead [EPA 6010C] Analyst: SS

Prep: EPA 3005A-1311 Matrix: Extract

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
0060339-01	1	210	0.013	mg/L	1	B0F1234	06/12/2020	06/12/2020 13:32	
0060339-02	2	210	0.013	mg/L	1	B0F1234	06/12/2020	06/12/2020 13:37	
0060339-03	3	110	0.013	mg/L	1	B0F1234	06/12/2020	06/12/2020 13:41	

CET #: 0060339

Project: Rehabilitation of Bridge 01686B, I-84 TR825, Htfd

Project Number: 289951.6288.0710

All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

This technical report was reviewed by Timothy Fusco

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David Ditta Laboratory Director Project Manager

#### Report Comments:

Sample Result Flags:

E- The result is estimated, above the calibration range.

David Sitta

- H- The surrogate recovery is above the control limits.
- L- The surrogate recovery is below the control limits.
- B- The compound was detected in the laboratory blank.
- P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
- D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
- +- The Surrogate was diluted out.
- \*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
- \*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
- \*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
- \*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
- \*I- Analyte exceeds method limits from second source standard in Initial Calibration Verification (ICV). No directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit

Reporting Limit (RL) is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.

All analyses were performed in house unless a Reference Laboratory is listed.

Samples will be disposed of 30 days after the report date.

CET #: 0060339

Project: Rehabilitation of Bridge 01686B, I-84 TR825, Htfd

Project Number: 289951.6288.0710

#### CERTIFICATIONS

#### Certified Analyses included in this Report

Analyte Certifications

EPA 6010C in Water

Lead NY,CT

 $Complete\ Environmental\ Testing\ operates\ under\ the\ following\ certifications\ and\ accreditations:$ 

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2020
NY	New York Certification (NELAC)	11982	04/01/2021

Brendan Relinquished by: (Signature) Brendan McClure 289951.6288.0710 Bondan INSPECTOR: (SIGNATURE) PROJECT NUMBER TELEPHONE (860) 298-9692 FAX (860) 298-6380 21 GRIFFIN ROAD NORTH SAMPLE NUMBER WINDSOR, CONNECTICUT 06095 Results to Stephan FIELD 6-10-20 1132 6-10-20 0950 6-10-20 1295 DATE TIME Ariente 6-10-20 Ize: COMP TYPE I-84 TR825 and Columbus Blud, Hardba (PRINTED) PROJECT NAME Rehabilitation of Bridge 016868 X I-beam on Pier 1 GRAB Brendan McClure Bridge railing stanction I- beam between Piers Sand G SAMPLE LOCATION Come C sariente@trccompanies.com TCLP CHAIN OF CUSTODY MM 6/11/20 0940 KAMIO 22 v Relinquished by: Bignaphe RCRA Pb (Printed) RCRA Pb, AS, CR, PARAMETERS CD CREC 8 RCRA Metals TCLP Pb ろうろう SPLP Pb

Green

Paint

Green Paint Silver Paint

1245

Page 1 of 2

Received by: (Signature)



Supersede Previous Edition Edition: November 2013

TURNAROUND TIME

LAB ID #.

24hr

48hr 48hr

3day 3day

5day 5day

MATERIAL

21 GRIFFIN ROAD NORTH WINDSOR, CONNECTICUT 06095 TELEPHONE (860) 298-9692 FAX (860) 298-6380

# **ASBESTOS BULK SAMPLING**

**CHAIN OF CUSTODY** 

LAB ID#.

Edition: October 2009 Supersede Previous Edition

												1	1	
PROJECT NUMBER			PRC	PROJECT NAME							TUR	TURNAROUND TIME	TIME	
			Con	ConnDOT - Bridge No. 01686B,		PARAMETERS	H.T.H.	S		PLM:	X 8hr	24hr	48hr	3day
289951.6288.0710			528-: CT	528-598 Columbus Blvd, Hartford, CT						TEM:	X 24hr	48hr	3day	5day
			INSI	INSPECTOR		(								
Soon for my			Bren	Brendan McClure, Elise Barrieau,		notion	KEK	(%						
3			Fat	Pat Schaffner		npa	V٦	601						
		TY	TYPE			ic re	BY	[> 38				TOTAL STATE		
DATE	TIME	COMP	СКАВ	SAMPLE LOCATION	PLM EPA 6	PLM EPA 6 (w) gravimeti POSITIV	VAVLYZE	MI< AI)	(IE PLM SE			MAIEKIAL	١	
6/10/2020	10:00		×	Under bearing plate on pier 1	×					C1 - Canvas- concrete pier	as-like cau ier	lk between	C1 - Canvas-like caulk between bearing plate and concrete pier	ρι
6/10/2020	10:03		X	X Under bearing plate on pier 1	X		À		×	C1 - Canvas- concrete pier	as-like cau ier	lk between	<ul><li>C1 - Canvas-like caulk between bearing plate and concrete pier</li></ul>	ρι
6/10/2020	12:03		X	Next to pier 3 in expansion joint	X					T1 - Black	tar in expa	T1 - Black tar in expansion joint		
6/10/2020	12:03		X	Next to pier 3 in expansion joint	X				×	T1 - Black	tar in exp	T1 - Black tar in expansion joint		

Relinquished by: (Signature)	Date:	Received by: (Signature) $L_{1/2}$ Relinquished by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Bundan M	6-10-20	The same of the sa			
(Printed)	Time:	(Printed)	(Printed)	Time:	(Printed)
Brendan McClure	1500	My Mamson			
Remarks: RESULTS TO S.A.			Condition of Samples:		
			Acceptable: Yes N	Jo Ot	Page 1 of 1
			Comments:		



Page 1 of 1 55290.CT-DOT.doc

BULK ASBESTOS ANALYSIS REPORT

CT Department of Transportation CLIENT:

Lab Log #: 0055290

Project #: 289951.6288.0710

Date Received: 06/11/2020 Date Analyzed: 06/11/2020

Site: Bridge #01686B, 528-598 Columbus Blvd., Hartford, CT

#### POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi- Layered	Layer No.		her Matrix Materials	Asbestos %	Asbestos Type
1	Brown (canvas)	Yes	No				ND	None
2	Brown (canvas)	Yes	No				ND	None
3	Black (expansion joint)	Yes	No		20%	cellulose	5%	Chrysotile
4							NA/PS	

Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2020. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2020. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Reviewed by:

Cathryn Lemire, Approved Signatory

Date Issued

06/15/2020

Kathleen Williamson, Laboratory Manager

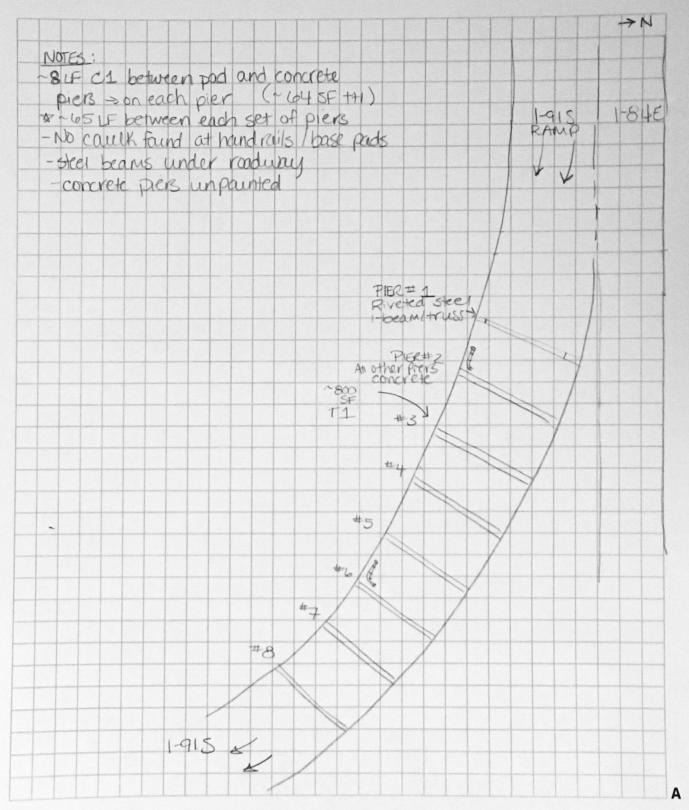
TRC

SHEET NO. OF 6288

PROJECT NO. DATE LA 10/2020

BY EB /PS/BM

SUBJECT BRIDGE 1686 B HOHFOOCHED CT DOT



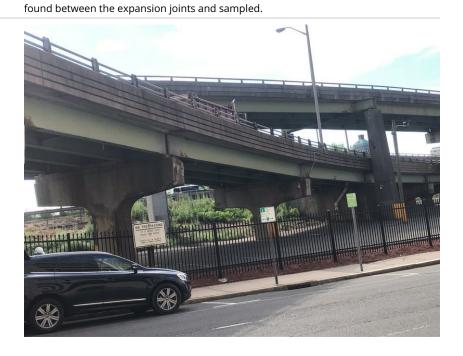
#### ConnDOT, Bridge No. 01686B, Hartford, , Hartford, 06103, CT, US, Columbus Blvd, 528-598

Created	2020-06-10 08:59:31 EDT by Brendan McClure
Updated	2020-06-16 11:17:46 EDT by Stephen Arienti
Location	41.768558485536, -72.6692386241415
Status	Survey Complete

#### **lob** Information

job illioitilation	
Site Name	Bridge No. 01686B
Address	528–598 Columbus Blvd
	Hartford, CT 06103
TRC Project Number	289951.6288.0710
Project Manager	Stephen Arienti
Inspector(s)	Brendan McClure, Pat Schaffner, Elise Barrieau
Client	ConnDOT
Type of Asbestos Survey	Reno/Demo
Additional Analysis for NOB Materials (Calc)	TEM NY NOB 198.4
PLM Turnaround Time (TAT)	24-hour
TEM Turnaround Time (TAT)	24-hour
Date	2020-06-10
General Notes	Pipe between piers 1 and 2 have no suspect asbestos and is made of plastic and metal. Green paint on the I-beam on pier 1 reads positive lead paint and a TCLP was sampled. The pipe between piers 1 and 2 has hot green paint. The bridge railing is accessible only at the bridge's lowest point in the parking lot. The silver paint on the bridge railing

Overview Photo



vertical stanchions is positive lead paint. The horizontal part of the railing is galvanized. It is not assumed there is positive ACM caulking underneath the bridge railing. Tar was





Pier 2 w/ bridge number



Pipe between pier 1 and 2. The pipe is  $\sim$ 50 LF.



Pier 1 with I-beam where the first TCLP was sampled. This I-beam is ~200 sq ft.



Surveys Performed

Asbestos, Hazardous Materials Inventory, TCLP Sampling, XRF

#### **Asbestos Section**

# (2), C, 1, Canvas-like caulk between bearing plate and concrete pier, 2

Representative Photos



# Under bearing plate on pier 1

Sample Location	Under bearing plate on pier 1
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2020-06-10
Time	10:00

# Under bearing plate on pier 1

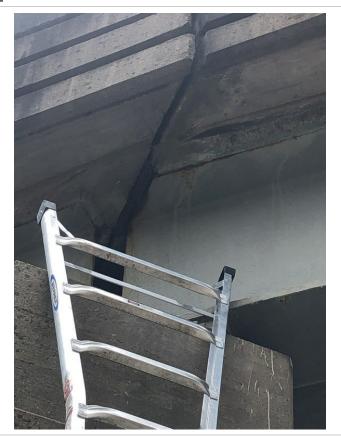
Sample Location	Under bearing plate on pier 1
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2020-06-10
Time	10:03

# **Material Information**

Sampled or Assumed?	Sampled
Material Acronym	C, 1
Material Description	Canvas-like caulk between bearing plate and concrete pier
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	Underneath bearing plates on piers
Total Approximate Quantity	~64 sq ft
Total Count	(2)
Total Count (number only)	2

# (2), T1, Black tar in expansion joint, 2

Representative Photos



# Next to pier 3 in expansion joint

Sample Location	Next to pier 3 in expansion joint
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116

Grab or Composite	Grab
Date	2020-06-10
Time	12:03
Next to pier 3 in expansion joint	
Sample Location	Next to pier 3 in expansion joint
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2020-06-10
Time	12:03
Material Information	
Sampled or Assumed?	Sampled
Material Acronym	T1
Material Description	Black tar in expansion joint
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	Between all expansion joints
Total Approximate Quantity	~800 sq ft
Total Count	(2)
Total Count (number only)	2
XRF Section	
Niton XRF Model No.	24792
XRF Survey Completed	Yes
XRF Data Downloaded	Yes
XRF Shots >1.0 on non-metallic building materials	No
Date Data Downloaded	2020-06-10
HAZMAT Inventory Section	
On top of Bridge	
Inventory Area Description	On top of Bridge
Universal Waste (UW) Peadway lights	
Universal Waste (UW), Roadway lights	
Description	Universal Waste (UW), Roadway lights
Quantity	4



#### Underneath bridge

Inventory Area Description	Underneath bridge
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# Universal Waste (UW), Security System/Control Panels (Circuit boards/Hg Lamps/Batteries)

Description	Universal Waste (UW), Security System/Control Panels (Circuit boards/Hg Lamps/Batteries)
Common Name	Security Cameras
Quantity	14



#### Universal Waste (UW), Halogen Lights (Hg Lamps)

Description	Universal Waste (UW), Halogen Lights (Hg Lamps)
Quantity	10



# Universal Waste (UW), Fluorescent bulbs - 4' (Hg Lamps)

Description	Universal Waste (UW), Fluorescent bulbs - 4' (Hg Lamps)
Quantity	2



# Universal Waste (UW), Electronic Light Ballasts (Circuit Boards)

Description	Universal Waste (UW), Electronic Light Ballasts (Circuit Boards)
Quantity	1



I-beam on pier 1

#### TCLP/SPLP/Total Lead Section

TCLP/SPLP/Total Lead Sample Description

#### I-beam on pier 1

Metal	
Material	Metal
Square Footage	200
Type of Analysis	TCLP Lead
Grab or Composite	Grab
Date	2020-06-10
Time	09:50

#### TCLP/SPLP/Total Lead Photos



# I-beam between piers 5 and 6

TCLP/SPLP/Total Lead Sample Description	I-beam between piers 5 and 6
Metal	
Material	Metal
Type of Analysis	TCLP Lead
Grab or Composite	Grab
Date	2020-06-10
Time	11:32



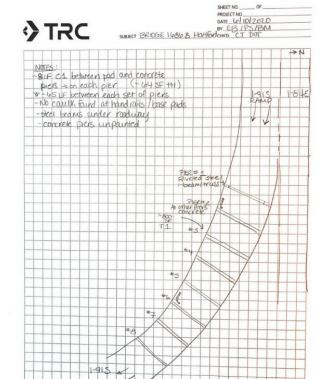
# Silver paint on bridge railing stanchion

TCLP/SPLP/Total Lead Sample Description	Silver paint on bridge railing stanchion
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#### Metal

Wictui		
Material	Metal	
Type of Analysis	TCLP Lead	
Grab or Composite	Grab	
Date	2020-06-10	
Time	12:05	

#### **General Information**



Asbestos Samples Submitted to TRC Lab	Yes
Date Submitted to Lab	2020-06-10
TCLP/SPLP Samples Submitted to Lab	Yes
TCLP/SPLP Samples Submitted To:	CET
Date Submitted to Lab	2020-06-10
App Name	WinBSI HBM Survey 1.0

#### **Generate Report Documentation**

Select one or more documents below to be generated. Once completed in the cloud, they will be sent to the listed email address. Please report any difficulties or errors to Justin Coleman.

What documents should be generated?	Asbestos chain-of-custody
Where should the document(s) be sent?	sarienti@trcsolutions.com
Generate Documents	N/A

Hazardous/Contaminated Materials Screening Request State Project No. 063-654 Bridge No. 01686B I-84 TR 825 over US Route 44 EB and Columbus Boulevard – Hartford

#### **Project Description:**

Bridge No. 01686B supports the I-84 eastbound transition ramp to I-91 southbound (TR 825) over U.S. Route 44 eastbound (Morgan Street) and Columbus Boulevard in the city of Hartford.

The existing bridge superstructure consists of an eight-span, steel, multi-girder superstructure with a reinforced concrete deck and a bituminous concrete wearing surface. The existing bridge substructure consists of eight piers. Pier number 1 consists of a concrete column with a riveted steel pier cap. Piers numbered 2 through 8 consist of cast-in-place concrete columns and caps. There are no abutments or wingwalls located at either end of the structure as Bridge No. 01686B is connected to Bridge No. 01686A at the west end and Bridge No. 01686E at the east end.

The overall condition of Bridge No. 01686B is fair, however the bridge has been determined to be in need of repair primarily due to the poor condition of the deck. The existing girders are in fair condition with some areas of rusting and section loss. The expansion joints are in fair condition with minor leakage occurring. The substructure is in fair condition with general cracking and deterioration of the concrete, as well as heavy rusting of the Pier 1 riveted steel cap.

The proposed rehabilitation consists of:

- Replacing the existing expansion joints;
- Removing the bituminous concrete overlay and membrane;
- Patching the deteriorated deck concrete in all spans;
- Installing new membrane waterproofing and a bituminous concrete wearing surface;
- Modifying the existing parapets to remove the safety walk and provide a 42-inch high safety shape. As per CTDOT's standard detailing, no effort will be made to increase the structural adequacy of the deck or barrier;
- Removing rust and deteriorated paint from the girder ends, the end diaphragms, the entire Pier 1 steel cap, and the fixed and end expansion bearings;
- Painting structural steel girder ends and other areas as required;
- Patching hollow and spalled concrete on the substructure and installing sacrificial anodes as required;
- Removing concrete haunches at the girder top flanges.

It is anticipated that temporary off-peak lane closures of local streets and full closure of the bridge ramp will be utilized to maintain and protect traffic during construction. Due to the narrow curb to curb width and tight radius, the bridge cannot be rehabilitated using stage construction. Traffic along Transition Ramp 825 will require a long-term closure and/or a series of weekend closures with a detour to facilitate deck and joint repairs. Off-peak lane/shoulder closures will be utilized along U.S. Route 44 (Morgan Street) and Columbus Boulevard to facilitate repairs beneath the bridge deck. The sidewalk along Morgan Street and Columbus Boulevard will be closed for various activities throughout construction, a pedestrian detour shall be implemented during those periods. Parking spaces in the Columbus Boulevard Parking Lot will be temporarily cordoned, and on street parking, bus routes, and access to the Morgan Street Garage may be impacted during construction.

Hazardous/Contaminated Materials Screening Request State Project No. 063-654 Bridge No. 01686B I-84 TR 825 over US Route 44 EB and Columbus Boulevard – Hartford

As a result of the construction impacts associated with the proposed rehabilitation of Bridge No. 01686B, no environmental permits, utility impacts, or right-of-way impacts are anticipated. Construction is anticipated to begin in Fall of 2020 and be complete in Fall of 2021. The project is to be undertaken with 80% Federal and 20% State funds. The current obligated construction cost is approximately \$4.4 Million.

